



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

December 5, 2003

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: RR Donnelley & Sons / SPM 085-18151-00009

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

December 5, 2003

Mr. Grant McGuire
R.R. Donnelley & Sons Company
P.O. Box 837
Warsaw, Indiana 46586

Re: 085-18151
First Significant Permit Modification to:
Part 70 permit No.: T085-6040-00009

Dear Mr. McGuire:

R.R. Donnelley & Sons Company-Warsaw Manufacturing Division was issued a Part 70 permit on August 5, 2002 for a publication rotogravure printing facility. A letter requesting changes to this permit was received on August 13, 2003. Pursuant to the provisions of 326 IAC 2-7-12(d) a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of incorporating the following activities permitted in Significant Source Modification 085-17834:

- (a) Removal of the existing Cyclone EPC-1 with a maximum air flow capacity of 30,364 cubic feet per minute (cfm), used in the pneumatic dust and paper trim collection operation. This cyclone will be replaced by a new Cyclone EPC-1 with a maximum air flow capacity of 46,078 cfm.
- (b) Removal of existing Cyclone Concentrator EPCON-6 with a maximum air flow capacity of 10,500 cfm, used in the pneumatic dust and paper trim collection operation.
- (c) Installation of a new Baghouse EPBH-G maximum air flow capacity of 60,870 cfm.
- (d) The reclassification of an insignificant activity - Dust Auger and Silo into a permitted operation controlled by existing Baghouse EPBH-F. This system has a maximum total air flow capacity of 3,000 cfm.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Aida De Guzman OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for extension (3-4972), or dial (317) 233-4972.

Sincerely,

Original signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

APD

cc: File - Kosciusko County
U.S. EPA, Region V
Kosciusko County Health Department
Northern Regional Office
Air Compliance Section Inspector - Doyle Houser
Compliance Data Section - Karen Nowak
Administrative and Development
Technical Support and Modeling - Michele Boner

PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**R.R. Donnelley & Sons Company
Warsaw Manufacturing Division
2801 West Old Route 30
Warsaw, Indiana 46581-0837**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T085-6040-00009	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: August 05, 2002 Expiration Date: August 05, 2007

First Administrative Amendment No.: 085-16533, issued on October 4, 2002

Second Administrative Amendment No.: 085-17386, issued June 30, 2002

Third Administrative Amendment No.: 085-18023, issued on September 8, 2003

First Significant Permit Modification No.: 085-18151	Pages Affected: 7, 8, 20, 44, 45, 46, 62 Pages Added: 46a, 62a
Issued by:Original signed by Paul Dubenetzky Paul Debenetzky, Chief Permit Branch Office of Air Quality	Issuance Date: December 5, 2003

(PTE). WRO-493 and WRO-494 are pre-approved presses at the time of this permit issuance under Construction Permit PSD/CP085-4396-00009,

- (1) WR-444, installed in December of 1996, with a maximum printing width of 78 3/4 inches and a maximum line speed of 2450 feet per minute, and, although not required by rule, enclosed by permanent total enclosure (PTE),
- (2) WR-441, WR-442, WR-443, installed in December of 1996, with each press having a maximum printing width of 78 3/4 inches and a maximum line speed of 2450 feet per minute, and enclosed by permanent total enclosure (PTE),
- (c) Three (3) rotogravure proof presses, using the carbon adsorption solvent recovery system described above as control, described as follows:
 - (1) WCM-440, with a maximum printing width of 73 inches and a maximum line speed of 400 feet per minute,
 - (2) WCM-450, installed in September of 1994, with a maximum printing width of 125 inches and a maximum line speed of 900 feet per minute,
 - (3) WCM-460, installed in December of 1993, with a maximum printing width of 78 7/8 inches and a maximum line speed of 600 feet per minute,
- (d) One (1) gravure cylinder wash machine, identified as GCW, installed in April of 1995, located in the east plant.
- (e) One (1) gravure parts press parts washer, identified as GPW, installed in 1991, located in the east plant.
- (f) One (1) gravure cylinder wash machine, identified as WCWM, installed in May of 2000, located in the west plant, using the carbon adsorption solvent recovery system and enclosed by permanent total enclosure (PTE).
- (g) One (1) gravure press parts washer, identified as WGPW, installed in May of 2000, located in the west plant, enclosed by permanent total enclosure (PTE).
- (h) Two (2) chromium plating lines, CRT-1 and CRT-2, installed in September of 1994, using a composite mesh pad system with a hepafilter as control, each having two (2) rectifiers with a maximum combined capacity of 10,000 amps,
- (i) One (1) pneumatic dust and paper trim collection system located in the east plant and consisting of:
 - (1) One (1) cyclone, identified as EPC-3, installed in May of 1994, exhausting to one (1) baghouse, identified as EPBH-C, installed in June of 1994,
 - (2) One (1) cyclone, identified as EPC-1, installed in October of 2003.
 - (3) One (1) cyclone, identified as EPC-2, installed in 1978,
 - (4) One (1) cyclone concentrator, identified as EPCON-5, installed in June of 1995, exhausting to one (1) baghouse, EPBH-G, installed in September of 2003, EPCON-5 concentrated paper sent to EPC-3,
 - (5) Three (3) baghouses, identified as EPBH-C, EPBH-D, installed in June of 1994, and EPBH-E, with collected dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system,

- (6) One (1) Baghouse EPBH-G, installed in September of 2003.
- (7) One (1) cyclone, identified as EPC-4, with air exhausting to one (1) baghouse, EPBH-D with concentrated dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system.
- (j) One (1) pneumatic paper trim collection system located in the west plant and consisting of:
 - (1) One (1) cyclone, identified as WPC-1, installed in June of 1969,
 - (2) One (1) cyclone, identified as WPC-2, installed in June of 1969,
 - (3) One (1) cyclone concentrator, identified as WPCON-3, installed in August of 1993, modified in June 2002, with concentrated paper sent primarily to a cyclone, WPC-1 or secondarily to WPC-2, exhausting to one (1) baghouse, WPBH, installed in August of 1993,
 - (4) One (1) baghouse, identified as WPBH, with collected dust sent to cyclone, WPC-1 or WPC-2, with air exhausting to the bindery,
 - (5) One (1) cyclone concentrator, identified as WPCON-4, installed in August of 1993, modified June 2002, which has a maximum capacity of 10,500 pounds per hour, with concentrated paper sent primarily to cyclone WPC-1, or secondarily to WPC-2,
 - (6) One (1) cyclone concentrator, identified as WPCON-5, installed in June 2002, which has a maximum capacity of 10,500 pounds per hour, with concentrated paper sent primarily to cyclone WPC-1, or secondarily to WPC-2.
- (k) Six (6) cylinder making finishing sinks located in the east plant, identified as EPFS-1 through EPFS-6, installed in September of 1994,
- (l) One (1) wastewater treatment system located in the east plant and consisting of:
 - (1) One (1) 800 gallon solvent/water separator, identified as WWT-4, installed in 2003,
 - (2) One (1) 1000 gallon solvent/water separator, identified as WWT-2, installed in 1985,
 - (3) One (1) 17,800 gallon air sparging tank, identified as WWT-3, installed in 1985.
- (m) One (1) cylinder making finishing sink station located in the west plant, identified as WPFS-1, installed in April of 1990,
- (n) Thirty-seven (37) storage tanks, installed in dates ranging from 1960 through 1989, (specific dates are discussed in the Technical Support Document).

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (c) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (i) One (1) pneumatic dust and paper trim collection system located in the east plant and consisting of:
 - (1) One (1) cyclone, identified as EPC-3, installed in May of 1994, exhausting to one (1) baghouse, identified as EPBH-C, installed in June of 1994,
 - (2) One (1) cyclone, identified as EPC-1, installed in October of 2003.
 - (3) One (1) cyclone, identified as EPC-2, installed in 1978,
 - (4) One (1) cyclone concentrator, identified as EPCON-5, installed in June of 1995, exhausting to one (1) baghouse, EPBH-G, installed in September of 2003, EPCON-5 concentrated paper sent to EPC-3,
 - (5) Three (3) baghouses, identified as EPBH-C, EPBH-D, installed in June of 1994, and EPBH-E, with collected dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system,
 - (6) One (1) Baghouse EPBH-G, installed in September of 2003.
 - (7) One (1) cyclone, identified as EPC-4, with air exhausting to one (1) baghouse, EPBH-D with concentrated dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system.
- (j) One (1) pneumatic paper trim collection system located in the west plant and consisting of:
 - (1) One (1) cyclone, identified as WPC-1, installed in June of 1969,
 - (2) One (1) cyclone, identified as WPC-2, installed in June of 1969,
 - (3) One (1) cyclone concentrator, identified as WPCON-3, installed in August of 1993, modified in June 2002, with concentrated paper sent primarily to a cyclone, WPC-1 or secondarily to WPC-2, exhausting to one (1) baghouse, WPBH, installed in August of 1993,
 - (4) One (1) baghouse, identified as WPBH, with collected dust sent to cyclone, WPC-1 or WPC-2, with air exhausting to the bindery,
 - (5) One (1) cyclone concentrator, identified as WPCON-4, installed in August of 1993, modified June 2002, which has a maximum capacity of 10,500 pounds per hour, with concentrated paper sent primarily to cyclone WPC-1, or secondarily to WPC-2,
 - (6) One (1) cyclone concentrator, identified as WPCON-5, installed in June 2002, which has a maximum capacity of 10,500 pounds per hour, with concentrated paper sent primarily to cyclone WPC-1, or secondarily to WPC-2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the pneumatic paper dust and trim collection in the east plant system shall not exceed allowable PM emission rate of 20.3 pounds per hour based on a process weight rate of 10.19 tons of paper per hour using the following equation:
Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:
$$E = 4.10 P^{0.67}$$
 where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour
- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the three (3) waste paper concentrators in the west plant system, WPCON- 3, WPCON-4, and WPCON-5, and the two (2) cyclones, WPC-1 and WPC-2, shall not exceed allowable PM emission rate of 26.00 pounds per hour based on a process weight rate of 31,500 pounds of paper per hour using the following equation:
Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

- (c) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate emissions from the Cyclone EPC-1 and Dust Auger and Silo shall be limited as follows:

Facility	Process Weight (tons/hr)	Particulate Emissions Limit (lb/hr)
Cyclone EPC-1	4.0	10.4
Dust Auger and Silo	2.25	7.1

These limits shall be determined using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.4.2 PSD Limit [326 IAC 2-2]

- (a) PM and PM-10 emissions from the three (3) waste paper concentrators, identified as WPCON-3, WPCON-4 and WPCON-5 and the two (2) cyclones WPC-1 and WPC-2, shall be limited to 1.0 lb/ton and 0.6 lb/ton, respectively. Compliance with these limits shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable and also satisfy the requirement of Condition D.4.1.
- (b) Any change or modification to the three (3) waste paper concentrators, identified as WPCON-3, WPCON-4 and WPCON-5 and the two (2) cyclones WPC-1 and WPC-2, that may increase potential emissions to greater than twenty-five (25) tons per year of PM, or fifteen (15) tons per year of PM-10, must have prior approval from the Office of Air Quality.
- (c) The input of paper to the three (3) waste paper concentrators, identified as WPCON-3, WPCON-4 and WPCON-5 and the two (2) cyclones WPC-1 and WPC-2, shall be limited to less than 25,000 tons per twelve (12) consecutive month period, rolled on a monthly basis. This usage limit is required to limit the potential to emit of PM to less than 25 tons per 12 consecutive month period and PM10 to less than 15 tons per 12 consecutive month period. Compliance with this limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.
- (d) The input of waste paper to the Cyclone EPC-1 shall be limited to 35,040 tons per twelve consecutive month period with compliance demonstrated at the end of each month.
- (e) Baghouse EPBH-F shall be in operation at all times the Dust Auger and Silo are in operation.

Compliance with (d) and (e) of this condition shall limit the Particulate Matter (PM) emissions to less than 25 tons per twelve consecutive month period and Particulate Matter Less Than Ten Microns (PM10) to less than 15 tons per twelve consecutive month period. Therefore, 326 IAC 2-2, Prevention of Significant Deterioration (PSD) shall not be applicable.

D.4.3 Preventive Maintenance Plan

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.4 Visible Emissions Notations

- (a) Weekly visible emission notations of the Cyclone EPC-1 (when venting to a baghouse) and EPBH-F, pneumatic paper dust and trim collection systems, WPC-1, WPC-2, WPCON-4, EPC-3 & EPBH-C stack exhausts, shall be performed once per week during normal daylight operations when exhausting to the atmosphere. A trained employee or other trained observer shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.4.5 Baghouse and Cyclone Inspections

An inspection shall be performed each calendar quarter of EPBH-F, two (2) cyclones (WPC-1 and WPC-2) and the three (3) waste paper concentrators (WPCON-3, WPCON-4, WPCON-5) when venting to the atmosphere. A cyclone and baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.4.6 Broken Bag or Failure Detection

In the event that bag failure has been observed:

- (a) Within eight (8) hours of the determination of failure, response steps including timetable for completion shall be devised.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.7 Record Keeping Requirements

- (a) To document compliance with D.4.2(c), the Permittee shall maintain monthly records of paper throughput to the three (3) waste paper concentrators (WPCON-3, WPCON-4, and WPCON-5), and the two (2) cyclones (WPC-1 and WPC-2).
- (b) To document compliance with D.4.2(d), the Permittee shall maintain monthly records of waste paper throughput to the Cyclone EPC-1.
- (c) To document compliance with Condition D.4.4, the Permittee shall maintain records of weekly visible emission notations of Cyclone EPC-1 and EPBH-F stack exhausts.
- (d) To document compliance with Condition D.4.5, the Permittee shall maintain records of the results of the inspections required under Condition D.4.5 and the dates the vents are redirected.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.2(c) and Condition D.4.2(d) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the report forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

Quarterly Report

Source Name: RR Donnelley & Sons Company - Warsaw Manufacturing Division
Source Address: 2801 West Old Route 30, Warsaw, Indiana 46581
Mailing Address: P. O. Box 837, Warsaw, Indiana 46586
Significant Source Modification: 085-17834
Part 70 Permit No.: T085-6040-00009
Facility: Cyclone EPC-1
Parameter: PM and PM10
Limit: 35,040 tons input of waste paper per twelve consecutive month period with compliance demonstrated at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + 2
	Tons Input This Month	Tons Input Previous 11 Months	Tons Input 12 Month Total
Month 1			
Month 2			
Month 3			

? No deviation occurred in this quarter.

? Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Significant Source Modification and Significant Permit Modification to a Part 70 Source

Source Name: **RR Donnelley & Sons - Warsaw Manufacturing Division**
 Source Location: **2801 West Old Route 30, Warsaw, Indiana 46581-0837**
 County: **Kosciusko**
 SIC Code: **2754**
 SSM No.: **085-17834**
 SPM No.: **085-18151**
 Operation Permit No.: **T085-6040-00009**
 Permit Reviewer: **Aida De Guzman**

On October 28, 2003, the Office of Air Quality (OAQ) had a notice published in the Times Union Warsaw, Indiana, stating that RR Donnelley and Sons - Warsaw Manufacturing Division had applied for a significant source modification and a significant permit modification to increase the operational capacity of the existing East Plant Paper Handling System. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

RR Donnelley & Sons - Warsaw Manufacturing Division made the following comments to the significant source modification and the significant permit modification that were sent via e-mail. Additions to the permit are **bolded** and deletions are ~~struck through~~ for emphasis:

Comment 1: Please change the Facility Description language in Sections A.2 and D.4 of the Significant Permit Modification as follows:

- (i) One (1) pneumatic dust and paper trim collection system located in the east plant and consisting of:
 - (1) One (1) cyclone, identified as EPC-3, installed in May of 1994, exhausting to one (1) baghouse, identified as EPBH-C, installed in June of 1994,
 - (2) One (1) cyclone, identified as EPC-1, installed in October of 2003.
 - (3) One (1) cyclone, identified as EPC-2, installed in 1978,
 - (4) One (1) cyclone concentrator, identified as EPCON-5, installed in June of 1995, exhausting to one (1) baghouse, EPBH-G, installed in September of 2003, **EPCON-5 concentrated paper sent to EPC-3,**
 - (5) Three (3) baghouses, identified as EPBH-C, EPBH-D, installed in June of 1994, and EPBH-E, with collected dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system,
 - (6) ~~Installation of a new~~ **One (1)** Baghouse EPBH-G, installed in September of 2003.

- (7) One (1) cyclone, identified as EPC-4, **with air exhausting to one (1) baghouse, EPBH-D with concentrated dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system with air exhausting to one (1) baghouse, EPBH-D.**
- (j) no change
- (k) no change
- (l) One (1) wastewater treatment system located in the east plant and consisting of:
- (1) One (1) ~~3000~~ **800** gallon solvent/water separator, identified as WWT-4 **4**, installed in ~~1996~~ **2003**,
- (2) One (1) 1000 gallon solvent/water separator, identified as WWT-2, installed in 1985,
- (3) One (1) 17,800 gallon air sparging tank, identified as WWT-3, installed in 1985.
- (m) no change
- (n) no change

Response 1: The Significant Permit Modification will be changed and be worded as suggested:

Section A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

(a) through (h) no changes

- (i) One (1) pneumatic dust and paper trim collection system located in the east plant and consisting of:
- (1) One (1) cyclone, identified as EPC-3, installed in May of 1994, exhausting to one (1) baghouse, identified as EPBH-C, installed in June of 1994,
- (2) One (1) cyclone, identified as EPC-1, installed in October of 2003.
- (3) One (1) cyclone, identified as EPC-2, installed in 1978,
- (4) One (1) cyclone concentrator, identified as EPCON-5, installed in June of 1995, exhausting to one (1) baghouse, EPBH-G, installed in September of 2003, **EPCON-5 concentrated paper sent to EPC-3**,
- (5) Three (3) baghouses, identified as EPBH-C, EPBH-D, installed in June of 1994, and EPBH-E, with collected dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system,
- (6) ~~Installation of a new~~ **One (1) Baghouse EPBH-G**, installed in September of 2003.
- (7) One (1) cyclone, identified as EPC-4, **with air exhausting to one (1) baghouse, EPBH-D with concentrated dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system with air exhausting to one (1) baghouse, EPBH-D.**

- (j) no change
- (k) no change
- (l) One (1) wastewater treatment system located in the east plant and consisting of:
 - (1) One (1) ~~3000~~ **800** gallon solvent/water separator, identified as WWT-4 **4**, installed in ~~1996~~ **2003**,
 - (2) One (1) 1000 gallon solvent/water separator, identified as WWT-2, installed in 1985,
 - (3) One (1) 17,800 gallon air sparging tank, identified as WWT-3, installed in 1985.
- (m) no change
- (n) no change

Section D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (i) One (1) pneumatic dust and paper trim collection system located in the east plant and consisting of:
 - (1) One (1) cyclone, identified as EPC-3, installed in May of 1994, exhausting to one (1) baghouse, identified as EPBH-C, installed in June of 1994,
 - (2) One (1) cyclone, identified as EPC-1, installed in October of 2003.
 - (3) One (1) cyclone, identified as EPC-2, installed in 1978,
 - (4) One (1) cyclone concentrator, identified as EPCON-5, installed in June of 1995, exhausting to one (1) baghouse, EPBH-G, installed in September of 2003, **EPCON-5 concentrated paper sent to EPC-3,**
 - (5) Three (3) baghouses, identified as EPBH-C, EPBH-D, installed in June of 1994, and EPBH-E, with collected dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system,
 - (6) ~~Installation of a new~~ **One (1) Baghouse EPBH-G, installed in September of 2003.**
 - (7) One (1) cyclone, identified as EPC-4, **with air exhausting to one (1) baghouse, EPBH-D with concentrated dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system with air exhausting to one (1) baghouse, EPBH-D.**
- (j) One (1) pneumatic paper trim collection system located in the west plant and consisting of:
 - (1) One (1) cyclone, identified as WPC-1, installed in June of 1969,
 - (2) One (1) cyclone, identified as WPC-2, installed in June of 1969,
 - (3) One (1) cyclone concentrator, identified as WPCON-3, installed in August of 1993, modified in June 2002, with concentrated paper sent primarily to a cyclone, WPC-1 or secondarily to WPC-2, exhausting to one (1) baghouse, WPBH, installed in August of 1993,
 - (4) One (1) baghouse, identified as WPBH, with collected dust sent to cyclone, WPC-1 or WPC-2, with air exhausting to the bindery,
 - (5) One (1) cyclone concentrator, identified as WPCON-4, installed in August of 1993, modified June 2002, which has a maximum capacity of 10,500 pounds per hour, with concentrated paper sent primarily to cyclone WPC-1, or secondarily to WPC-2,
 - (6) One (1) cyclone concentrator, identified as WPCON-5, installed in June 2002, which has a maximum capacity of 10,500 pounds per hour, with concentrated paper sent primarily to cyclone WPC-1, or secondarily to WPC-2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Upon further review, the OAQ has decided to make the following revisions to the permit:

1. Condition C.2 Opacity in the issued Part 70 permit, inadvertently required 20% opacity. This requirement will be changed into 40%, since the source is not located in Lake County.
- C.2 Opacity [326 IAC 5-1]
 Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (a) Opacity shall not exceed an average of ~~twenty percent (20%)~~ **forty percent (40%)** in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
2. Summary of Emission table on Page 3 of 12 of the Technical Support Document was revised to reflect the limit made to the new Cyclone EPC-1:

SUMMARY OF EMISSION (TONS/YEAR)						
FACILITY	UNCONTROLLED EMISSIONS		CONTROLLED EMISSIONS		LIMITED EMISSIONS	
	PM	PM10	PM	PM10	PM	PM10
New Cyclone EPC-1	151.4	15.14	151.4	15.14	17.52	1.75
Dust Auger and Silo	19.7	19.7	0.197	0.197	0.197	0.197
TOTAL	171.1	34.84	151.6	15.3	17.7	1.947

SUMMARY OF EMISSION (TONS/YEAR)						
FACILITY	UNCONTROLLED EMISSIONS		LIMITED EMISSIONS		LIMITED AND CONTROLLED EMISSIONS	
	PM	PM10	PM	PM10	PM	PM10
New Cyclone EPC-1	151.4	15.14	17.52	1.75	17.52	1.75
Dust Auger and Silo	19.7	19.7	19.7	19.7	0.197	0.197
TOTAL	171.1	34.84	37.02	21.45	17.7	1.947

3. The change to the Emission Summary table will also be reflected in the **Potential To Emit of Modification** and the **Justification for Modification** paragraphs on Page 4 of 12 of the TSD as follows:

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution

control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)	Limited Potential To Emit (tons/year)
PM	171.1	37.02
PM-10	34.84	21.45
SO ₂	0.0	0.0
VOC	0.0	0.0
CO	0.0	0.0
NO _x	0.0	0.0

Justification for Modification

- (a) The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification, pursuant to 326 IAC 2-7(10.5)(f), since the **limited** PTE for PM ~~and PM10~~ is **still** greater than 25 tons per year; and
- (b) The Part 70 Operating permit is being modified through a Significant Permit Modification, pursuant to 326 IAC 2-7-12(d), as it involves significant changes to the existing monitoring, reporting and record keeping requirements in the Part 70 permit.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and Significant Permit Modification

Source Background and Description

Source Name:	R.R. Donnelley & Sons Company-Warsaw Manufacturing Division
Source Location:	2801 West Old Road 30, Warsaw, Indiana 46586
County:	Kosciusko
SIC Code:	2754
Operation Permit No.:	T085-6040-00009
Operation Permit Issuance Date:	August 5, 2002
Significant Source Modification No.:	085-17834
Significant Permit Modification No.:	085-18151
Permit Reviewer:	Aida De Guzman

The Office of Air Quality (OAQ) has reviewed a modification application from R.R. Donnelley & Sons Company relating to the reconfiguration of the existing East Plant Paper Handling System, to increase operational capacity which involves the following emission units:

- (a) Removal of the existing Cyclone EPC-1 with a maximum air flow capacity of 30,364 cubic feet per minute (cfm), used in the pneumatic dust and paper trim collection operation. This cyclone will be replaced by a new Cyclone EPC-1 with a maximum air flow capacity of 46,078 cfm.
- (b) Removal of existing Cyclone Concentrator EPCON-6 with a maximum air flow capacity of 10,500 cfm, used in the pneumatic dust and paper trim collection operation.
- (c) Installation of a new Baghouse EPBH-G maximum air flow capacity of 60,870 cfm.
- (d) The reclassification of an insignificant activity - Dust Auger and Silo into a permitted operation controlled by existing Baghouse EPBH-F. This system has a maximum total air flow capacity of 3,000 cfm.

History

On August 13, 2003, R.R. Donnelley & Sons Company submitted an application to the OAQ requesting to modify the existing East Plant Paper Handling System, to increase operational capacity. R.R. Donnelley & Sons Company was issued a Part 70 permit on August 5, 2002.

Existing Approvals

The source was issued a Part 70 Operating Permit T085-6040-00009 on August 5, 2002. The source has since received the following:

- (a) First Administrative Amendment No.: 085-16533, issued on October 4, 2002;
- (b) Second Administrative Amendment No.: 085-17386, issued on June 30, 2002;
- (c) Third Administrative Amendment No.: 085-18023, issued on September 8, 2003.

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 13, 2003. Additional information was received on September 11, 2003.

Emission Calculations

- (a) New Cyclone EPC-1:

An emission factor of 1.0 pound of PM per ton of waste paper (lb/ton) will be used in this process emission calculation. This factor has been used previously on all permits issued to RR Donnelley for similar operation, although a factor of 2 lbs/ton will be used for the dust auger and silo emission calculations. Emission factor (1 lb/ton) has also been verified through a stack test done on a cyclone in RR Donnelley's facility in Willard, Ohio. The test showed an emission rate of 0.36 lb/ton of paper processed which is below 1 lb/ton, the emission factor being used in this process calculation. The PM10 is 10% of the PM emitted, which is based on particulate size analysis.

4.5 pound of air / 1 lb of waste paper - Cyclone design criteria, based on G.F. Puhl, (designer and supplier of the cyclone systems).

The source will use the worst case design criteria: That every three (3) pounds of air moved, one (1) pound of waste paper can be processed. Factors such as type of material being handled (heavy trim vs. light dust) also impact the design criteria.

Air Moved	=	46,078 cfm * 60 min/hr * 0.075 lb air/cf
	=	207,351 lb air/hr

Material Processed	=	207,351 lb air/hr * 1 lb waste paper/ 3 lb air
	=	69,117 lb waste paper/hour

PM Emissions	=	69,117 lb/hr * 1 lb PM / ton paper * ton/2000 lb *
		ton/2000 lb * 8760 hr/yr

$$= 151.4 \text{ tons/year}$$

PM10 = 10 % PM, based on particulate size analysis.

$$\begin{aligned} \text{PM10 Emissions} &= 151.4 \text{ tons/yr} * 10\% \\ &= 15.14 \text{ ton/year} \end{aligned}$$

(b) Dust Auger and Silo, controlled by Baghouse EPBH-F:

$$\text{Capacity} = 3,000 \text{ cfm}$$

$$\begin{aligned} \text{Air Moved} &= 3,000 \text{ cfm} * 60 \text{ min/hr} * 0.075 \text{ lb air/cf} \\ &= 13,500 \text{ lb air/hr} \end{aligned}$$

$$\begin{aligned} \text{Material Processed} &= 13,500 \text{ lb air/hr} * 1 \text{ lb waste paper/ 3 lb air} \\ &= 4,500 \text{ lb waste paper/hour} \end{aligned}$$

$$\begin{aligned} \text{Uncontrolled PM/PM10} &= 4,500 \text{ lb/hr} * 1 \text{ lb PM / 1,000 lb paper} * \text{ton/2000} \\ &\quad \text{lb} * 8760 \text{ hr/yr} \\ &= 19.7 \text{ tons/year uncontrolled} \end{aligned}$$

Dust Auger and Silo are controlled by EPBH-F with 99% efficiency.

$$\begin{aligned} \text{Controlled PM/PM10} &= 19.7 \text{ tons/year} (1-0.99) \\ &= 0.197 \text{ ton/year} \end{aligned}$$

SUMMARY OF EMISSION (TONS/YEAR)						
FACILITY	UNCONTROLLED EMISSIONS		CONTROLLED EMISSIONS		LIMITED EMISSIONS	
	PM	PM10	PM	PM10	PM	PM10
New Cyclone EPC-1	151.4	15.14	151.4	15.14	17.52	1.75
Dust Auger and Silo	19.7	19.7	0.197	0.197	0.197	0.197
TOTAL	171.1	34.84	151.6	15.3	17.7	1.947

The modification is major for PSD, as the total PM emissions of 151.6 tons per year is greater than 25 tons per year and PM 10 emissions of 15.3 is greater than 15 tons per year.

The source chose not to take emission credits from the removal of the existing Cyclone EPC-1 and the existing Cyclone Concentrator EPCON-6.

Although, there is a baghouse after the Cyclone EPC-1 to control its PM/PM10 emissions, the source chose to be limited in terms of the waste paper to be processed from the Cyclone EPC-1, which is more practical and easy to monitor, and the limit requested is a lot less than the PSD significant threshold of 25 tons PM/year and 15 tons PM10/year. The limit to avoid PSD is as calculated below:

Limitation:

Emission Factor for EPC-1 --- 1 lb PM/ton of paper = 1lb PM/2000 of paper

Cyclone EPC-1:

$$\begin{aligned} \text{Limit on Waste Paper} &= 17.52 \text{ tons of PM/yr} * 2000 \text{ lb/ton} \\ &\quad * 2000 \text{ lb paper/lb PM} * \text{ton/2000 lb} \\ &= 35,040 \text{ tons of waste paper/year} \end{aligned}$$

The existing Cyclone EPC-1 located at the East Plant Paper Handling System that will be replaced by the proposed Cyclone EPC-1 does not have a previous limit to avoid PSD review. Although, the West Plant Paper Handling System has a limit to avoid PSD review, it will not be affected as it is not tied to the East Plant Paper Handling System. Therefore, this modification will not violate 326 IAC 2-2-8(3).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	171.1
PM-10	34.84
SO ₂	0.0
VOC	0.0
CO	0.0
NO _x	0.0

Justification for Modification

- (a) The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification, pursuant to 326 IAC 2-7(10.5)(f), since the PTE for PM and PM10 is greater than 25 tons per year; and
- (b) The Part 70 Operating permit is being modified through a Significant Permit Modification, pursuant to 326 IAC 2-7-12(d), as it involves significant changes to the existing monitoring, reporting and record keeping requirements in the Part 70 permit.

County Attainment Status

The source is located in Kosciusko County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Kosciusko County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for

Prevention of Significant Deterioration (PSD).

- (b) Kosciusko County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Source Status

Existing Source PSD Definition (emissions after controls, taken from Significant Source Modification 085-15579-00009, issued on June 20, 2002):

Pollutant	Emissions (tons/year)
PM	35.65
PM-10	16.50
SO ₂	0.00
VOC	350.00
CO	9.00
NO _x	35.00

- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)					
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x
New Cyclone EPC-1	17.52	1.752	0.0	0.0	0.0	0.0
Dust Auger and Silo	0.197	0.197	0.0	0.0	0.0	0.0
TOTAL PTE From Modification	17.72	1.95	0.0	0.0	0.0	0.0
PSD Significant Levels	25.0	15.0	40	40	100	40

PTE After Issuance of Modification	53.37	18.45	0.0	350	9.0	35.0
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- (a) This modification to an existing major stationary source is not major because the

emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Entire Source

- (a) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

- (a) 326 IAC 2-2 (Prevention of Significant Deterioration)
 - (1) This proposed modification is not a major modification, since the source requested a limit in the waste paper to be processed by the Cyclone EPC-1 in order to restrict the PM emissions to less than 25 tons per year and PM 10 to less than 15 tons per year; and
 - (2) The baghouse will be operated whenever the Dust Silo and Auger are in operation in order to control the PM and PM10 emissions.

The combined throughput limit processed by the Cyclone EPC-1 and the operation of the baghouse that controls the PM/PM10 emissions from the Dust Silo and Auger shall make 326 IAC 2-2, Prevention of Significant Deterioration (PSD) not applicable.

- (b) 326 IAC 6-3-2 (Process Operations)
The particulate emissions from the Cyclone EPC-1 and Dust Auger and Silo shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Facility	Process Weight (tons/hr)	Particulate Emissions Limit (lb/hr)
Cyclone EPC-1	4.0	10.4
Dust Auger and Silo	2.25	7.1

These facilities are in compliance with 326 IAC 6-3-2, as the rule allows more than what these facilities are capable of emitting.

Changes to the Part 70 Permit

The Part 70 permit will be modified to incorporate the changes permitted in the Significant Source Modification 085-17834-00009 (additions are **bolded** and deletions are ~~struck through~~ for emphasis):

1. Section A.2(i) will be modified to include the source modification as follows:
 - A.2 (i) One (1) pneumatic dust and paper trim collection system located in the east plant and consisting of:
 - (1) One (1) cyclone, identified as EPC-3, installed in May of 1994, exhausting to one (1) baghouse, identified as EPBH-C, installed in June of 1994,
 - (2) One (1) cyclone, identified as EPC-1, installed in ~~1978~~ **October of 2003**.
 - (3) One (1) cyclone, identified as EPC-2, installed in 1978,
 - (4) One (1) cyclone concentrator, identified as EPCON-5, installed in June of 1995, ~~with concentrated paper sent to cyclone EPC-1, EPC-2, and EPC-3, exhausting to one (1) baghouse, EPBH-G, installed in June of 1995~~ **September of 2003**,
 - (5) Three (3) baghouses, identified as EPBH-C, EPBH-D, installed in June of 1994, and EPBH-E, with collected dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system ~~(identified as an insignificant activity)~~,
 - (6) ~~One (1) cyclone concentrator, identified as EPCON-6, with concentrated dust sent to one (1) cyclone, EPC-4, installed in May of 1994, or to one (1) cyclone concentrator, EPCON-5, with air exhausting to one (1) baghouse, EPBH-E,~~ **Installation of a new Baghouse EPBH-G, installed in September of 2003.**
 - (7) One (1) cyclone, identified as EPC-4, with concentrated dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system ~~(identified as an insignificant activity)~~ with air exhausting to one (1) baghouse, EPBH-D.
2. Section D.4. will be modified to include the source modification as follows:

SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (i) One (1) pneumatic dust and paper trim collection system located in the east plant and consisting of:
- (1) One (1) cyclone, identified as EPC-3, installed in May of 1994, exhausting to one (1) baghouse, identified as EPBH-C, installed in June of 1994,
 - (2) One (1) cyclone, identified as EPC-1, installed in ~~1978~~ **October of 2003**.
 - (3) One (1) cyclone, identified as EPC-2, installed in 1978,
 - (4) One (1) cyclone concentrator, identified as EPCON-5, installed in June of 1995, ~~with concentrated paper sent to cyclone EPC-1, EPC-2, and EPC-3, exhausting to one (1) baghouse, EPBH-G, installed in June of 1995~~ September of 2003,
 - (5) Three (3) baghouses, identified as EPBH-C, EPBH-D, installed in June of 1994, and EPBH-E, with collected dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system ~~(identified as an insignificant activity)~~,
 - (6) ~~One (1) cyclone concentrator, identified as EPCON-6, with concentrated dust sent to one (1) cyclone, EPC-4, installed in May of 1994, or to one (1) cyclone concentrator, EPCON-5, with air exhausting to one (1) baghouse, EPBH-E,~~
Installation of a new Baghouse EPBH-G, installed in September of 2003.
 - (7) One (1) cyclone, identified as EPC-4, with concentrated dust sent to one (1) dust auger, silo, and baghouse (EPBH-F) system ~~(identified as an insignificant activity)~~ with air exhausting to one (1) baghouse, EPBH-D.

- (j) One (1) pneumatic paper trim collection system located in the west plant and consisting of:
- (1) One (1) cyclone, identified as WPC-1, installed in June of 1969,
 - (2) One (1) cyclone, identified as WPC-2, installed in June of 1969,
 - (3) One (1) cyclone concentrator, identified as WPCON-3, installed in August of 1993, modified in June 2002, with concentrated paper sent primarily to a cyclone, WPC-1 or secondarily to WPC-2, exhausting to one (1) baghouse, WPBH, installed in August of 1993,
 - (4) One (1) baghouse, identified as WPBH, with collected dust sent to cyclone, WPC-1 or WPC-2, with air exhausting to the bindery,
 - (5) One (1) cyclone concentrator, identified as WPCON-4, installed in August of 1993, modified June 2002, which has a maximum capacity of 10,500 pounds per hour, with concentrated paper sent primarily to cyclone WPC-1, or secondarily to WPC-2,
 - (6) One (1) cyclone concentrator, identified as WPCON-5, installed in June 2002, which has a maximum capacity of 10,500 pounds per hour, with concentrated paper sent primarily to cyclone WPC-1, or secondarily to WPC-2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the pneumatic paper dust and trim collection in the east plant system shall not exceed allowable PM emission rate of 20.3 pounds per hour based on a process weight rate of 10.19 tons of paper per hour using the following equation:
Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:
$$E = 4.10 P^{0.67}$$
 where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the three (3) waste paper concentrators in the west plant system, WPCON- 3, WPCON-4, and WPCON-5, and the two (2) cyclones, WPC-1 and WPC-2, shall not exceed allowable PM emission rate of 26.00 pounds per hour based on a process weight rate of 31,500 pounds of paper per hour using the following equation:
 Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:
 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and
 P = process weight rate in tons per hour

- (c) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate emissions from the Cyclone EPC-1 and Dust Auger and Silo shall be limited as follows:

Facility	Process Weight (tons/hr)	Particulate Emissions Limit (lb/hr)
Cyclone EPC-1	4.0	10.4
Dust Auger and Silo	2.25	7.1

These limits shall be determined using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
 P = process weight rate in tons per hour

D.4.2 PSD Limit [326 IAC 2-2][40 CFR 52.21]

- (a) PM and PM-10 emissions from the three (3) waste paper concentrators, identified as WPCON-3, WPCON-4 and WPCON-5 and the two (2) cyclones WPC-1 and WPC-2, shall be limited to 1.0 lb/ton and 0.6 lb/ton, respectively. Compliance with these limits shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable and also satisfy the requirement of Condition D.1.1.
- (b) Any change or modification to the three (3) waste paper concentrators, identified as WPCON-3, WPCON-4 and WPCON-5 and the two (2) cyclones WPC-1 and WPC-2, that may increase potential emissions to greater than twenty-five (25) tons per year of PM, or fifteen (15) tons per year of PM-10, must have prior approval from the Office of Air Quality.
- (c) The input of paper to the three (3) waste paper concentrators, identified as WPCON-3, WPCON-4 and WPCON-5 and the two (2) cyclones WPC-1 and WPC-2, shall be limited to less than 25,000 tons per twelve (12) consecutive month period, rolled on a monthly basis. This usage limit is required to limit the potential to emit of PM to less than 25 tons per 12 consecutive month period and PM10 to less than 15 tons per 12 consecutive month period. Compliance with this limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.
- (d) The input of waste paper to the Cyclone EPC-1 shall be limited to 35,040 tons per twelve consecutive month period with compliance demonstrated at the end of each month.
- (e) Baghouse EPBH-F shall be in operation at all times the Dust Auger and Silo are in operation.

Compliance with (d) and (e) of this condition shall limit the Particulate Matter (PM) emissions to less than 25 tons per twelve consecutive month period and Particulate Matter Less Than Ten Microns (PM10) to less than 15 tons per twelve consecutive month period. Therefore, 326 IAC 2-2, Prevention of Significant Deterioration (PSD) shall not be applicable.

D.4.3 No Change

3. Weekly Visible Emission Notation was required in the existing Part 70 permit (085-6040-00009), instead of every shift. IDEM, OAQ agreed with the source, which is documented in the TSD Addendum of this Part 70 permit. Therefore, this condition frequency of notation will stay the same.

D.4.4 Visible Emissions Notations

- (a) Weekly visible emission notations of the **Cyclone EPC-1 (when venting to a baghouse) and EPBH-F**, pneumatic paper dust and trim collection systems, ~~stack exhausts, from~~ WPC-1, WPC-2, WPCON-4, ~~EPC-1~~, EPC-3 & EPBH-C **stack exhausts**, shall be performed **once per week** during normal daylight operations when exhausting to the atmosphere. A trained employee or other trained observer shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.4.5 **Baghouse and Cyclone Inspections**

An inspection shall be performed each calendar quarter of **EPBH-F**, two (2) cyclones (WPC-1 and WPC-2) and the three (3) waste paper concentrators (WPCON-3, WPCON-4, WPCON-5) when venting to the atmosphere. A cyclone and baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.4.6 Broken Bag or Failure Detection

no change

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.7 Record Keeping Requirements

- (a) To document compliance with D.4.2(c), the Permittee shall maintain monthly records of paper throughput to the three (3) waste paper concentrators (WPCON-3, WPCON-4, and WPCON-5), and the two (2) cyclones (WPC-1 and WPC-2).
- (b) To document compliance with D.4.2(d), the Permittee shall maintain monthly records of waste paper throughput to the **Cyclone EPC-1**.
- (c) **To document compliance with Condition D.4.4, the Permittee shall maintain records of weekly visible emission notations of Cyclone EPC-1 and EPBH-F stack**

exhausts.

- (e d) To document compliance with Condition D.4.5, the Permittee shall maintain records of the results of the inspections required under Condition D.4.5 and the dates the vents are redirected.
- (~~d~~e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.2(c) **and Condition D.4.2(d)** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the report forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

4. The following Reporting Form will be added in the part 70 permit:

OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

Quarterly Report

Source Name: RR Donnelley & Sons Company - Warsaw Manufacturing Division
Source Address: 2801 West Old Route 30, Warsaw, Indiana 46581
Mailing Address: P. O. Box 837, Warsaw, Indiana 46586
Significant Source Modification: 085-17834
Part 70 Permit No.: T085-6040-00009
Facility: Cyclone EPC-1
Parameter: PM and PM10
Limit: 35,040 tons input of waste paper per twelve consecutive month period with compliance demonstrated at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + 2
	Tons Input This Month	Tons Input Previous 11 Months	Tons Input 12 Month Total
Month 1			
Month 2			

Month 3			
---------	--	--	--

? **No deviation occurred in this quarter.**

? **Deviation/s occurred in this quarter.**
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The Dust Auger and Silo dust collector is not required to have a stack test to verify its efficiency and to establish operating parameters, since it does not account for 40% of the total PTE before control for the major pollutant (PM). However, the owner or operator of the Dust Auger and Silo dust collector and EPC-1 Cyclone Dust Collector will be required to do Compliance Monitoring as they meet the following criteria: "a condition limiting the PTE is the only thing keeping the units out of an applicable requirement", which in this case is to keep the PM/PM10 emissions below the PSD significant levels.

1. Visible Emissions Notations

- (a) Visible emission notations of the Cylcone EPC-1 (when venting to a baghouse) and EPBH-F stack exhaust shall be performed once per week during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of

the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of

2. Baghouse Inspections

An inspection shall be performed each calendar quarter of EPBH-F when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached **Part 70 Significant Source Modification No. 085-17834-00009**, and operation subject to **Significant Permit Modification No. 085-18151-00009**.